Public Health Watch

Metro Public Health Dept
Nashville/Davidson County

A BI-MONTHLY PUBLIC HEALTH NEWSLETTER OF THE METRO PUBLIC HEALTH DEPARTMENT

ISSN - 1009 - 7423

Volume 8, Number 5 November/December 2004

Editor's Note: In the United States, winter influenza epidemics can cause illness in 10% to 20% of people and are associated with an average of 36,000 deaths and 114,000 hospitalizations per year. The influenza viruses can cause disease among all age groups. Although the rates of infection are higher among children, the rates of serious illness and death are highest among people aged 65 or older and among people of any age who have medical conditions that place them at increased risk for complications from the flu. The influenza vaccine remains the primary method for prevention of the flu and its complications.[1] Due to the influenza vaccine shortage, Metro Public Health Department, in accordance with the Centers for Disease Control and Prevention's guidelines, is providing flu vaccine only to specific high risk groups during this 2004 - 2005 influenza season.

Who Should Be Vaccinated During the 2004 - 2005 Flu Season?

1. Persons ages 65 and older.
2. Children ages 6 to 23 months.
3. Persons ages 2 to 64 years with underlying chronic medicalconditions.
4. Pregnant women.
5. Residents of nursing homes and other long-term care facilities.
6. Children ages 6 months to 18 years on long-term aspirin therapy.
7. Health care workers involved in direct patient care.
8. Caregivers and household contacts of infants under 6 months of age.

1. Persons ages 65 and older.

The elderly are the highest priority for vaccination because they have the highest mortality rates. People 65 years and over account for 90% of flu-related deaths.[1] Influenza vaccination reduces the number of hospitalizations among people in this age group. Some studies have shown that flu vaccine administration among the elderly may also reduce the risk for hospitalization for heart disease and cerebrovascular disease during the flu season.[2]

2. Children ages 6 to 23 months.

Among children aged 0—4 years, hospitalization rates have ranged from approximately 500/100,000 children for those with high-risk medical conditions to 100/100,000 children for those without high-risk medical conditions. Within the 0—4 year age group, hospitalization rates are highest among children aged 0—1 years and are comparable to rates reported among persons ≥65 years.[1]

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Signs and Symptoms of Influenza

Symptoms are generally abrupt in onset and may include:

- fever (usually high)
- myalgia (body aches)
- headache
- malaise (tiredness)
- nonproductive cough
- sore throat
- runny or stuffy nose

Children may also experience ear infections, nausea, and vomiting in addition to the respiratory symptoms.

The influenza virus is spread through the coughing and sneezing of infected persons.

Adults may be infectious to others from the day before symptoms begin to 5 days after the onset of illness. Children may be infectious for up to 7 days.

In This Issue:

3. Persons ages 2 to 64 years with underlying chronic medical conditions.

These chronic medical conditions include:

- Heart disease.
- Pulmonary disorders, including emphysema and asthma.
- Diabetes.
- Renal disease.
- Hemoglobinopathies.
- Immunodeficiency caused by HIV infection or immunosuppressive therapy (radiation therapy, chemotherapy, or high dose steroids).

4. Pregnant women

Pregnancy can increase the risk of serious medical complications of influenza. Researchers estimate that an average of 1 - 2 hospitalizations can be prevented for every 1,000 pregnant women vaccinated. Because of this risk for flu related complications, women who will be pregnant during the flu season should be vaccinated. The vaccine may be given during any trimester.[1]

5. Residents of nursing homes and other long term care facilities.

Both the residents and staff of long term care facilities should receive influenza vaccine in order to prevent outbreaks in the facilities.

6. Children ages 6 months to 18 years on long term aspirin therapy.

Because these children may be at risk of Reye syndrome due to the use of aspirin in the presence of influenza virus, they should receive influenza vaccination.[1]

7. Health care workers involved in direct patient care.

8. Caregivers and household contacts of infants under 6 months of age.

People with influenza, even in the early stages of disease, can transmit the virus to those people most at risk for complications from the disease. Health care workers who should be vaccinated include doctors, nurses, and other health care workers who provide hands on care to patients or who have frequent face-to-face contact with patients. This group also includes paramedics and emergency medical technicians. Because the flu vaccine has not been approved by the Food and Drug Administration for administration to children under 6 months of age and because children ages 0 - 23 months have increased risk for hospitalization with flu related complications, it is very important that caregivers and household contacts of these infants be vaccinated against influenza.[1]

References:

[1] Centers for Disease Control and Prevention. Prevention and Control of Influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP), *MMWR* 2004;53:1-40.

[2] Nichol KL, Nordin J, Mullooly J, et al. Influenza vaccination and reduction in hospitalizations for cardiac disease and stroke among the elderly. *N Engl J Med.* 2003;348:1322-1332.

Knowledge, Attitudes, and Behaviors Regarding Influenza Vaccination

Rhonda BeLue, PhD, Metro Public Health Department

The Tennessee Department of Health conducted a phone survey to assess knowledge, attitudes, and behaviors regarding influenza vaccinations. Few data are available on public attitudes, knowledge, and behavior regarding desire for influenza vaccination, care-seeking behaviors, and attitudes toward other alternatives for the prevention and treatment of influenza disease in the current context of moderate to severe influenza disease activity and insufficient supplies of injectable vaccine.

This study was created by Dr. Tim Jones, Deputy State Epidemiologist, Tennessee Department of Health, and executed at the Metro Public Health Department of Nashville/ Davidson County. This summary represents responses from Davidson County residents. There were a total of 1,061 responses from Davidson County residents. The study was conducted throughout the summer of 2004.

Summary of selected results

Demographics

Sixty-three percent of respondents were female. Eighty-three percent of participants indicated that they had high school education or higher. Seventy-seven percent of the respondents were Caucasian and 15% were African American. Twenty-six percent of participants made less than $30,000. Thirty percent made between $30,000 and $60,000. Eighteen percent made more than $60,000, and 23% refused to answer. Sixty- eight percent of participants lived in urban Davidson County.

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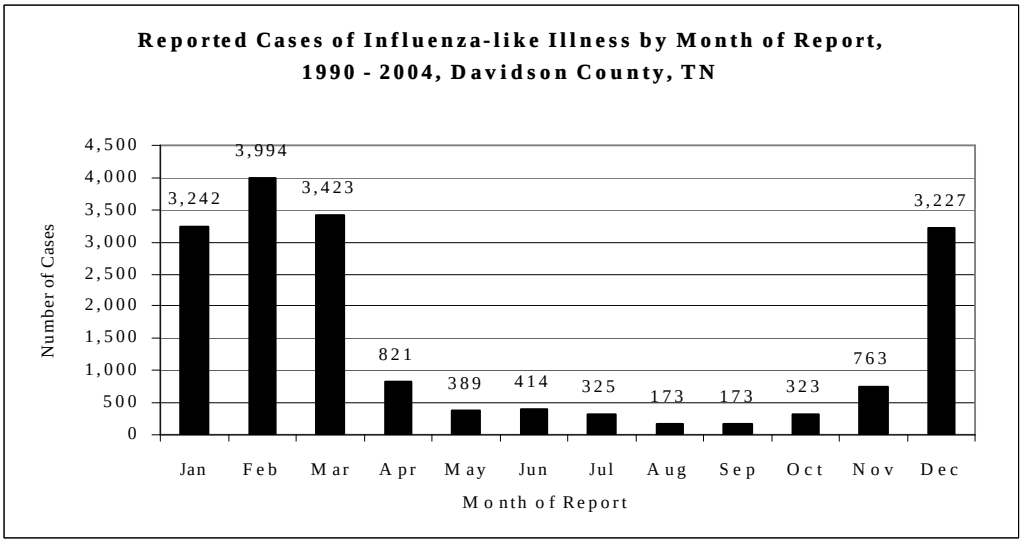

Peak Months for Flu Activity

According to the Centers for Disease Control and Prevention (CDC), the peak months for influenza in the United States are December - March. Examining 21 years of data, the CDC found that the peak month was February, with the most cases of influenza being reported in that month for 9 of the 21 years. (Available at: http://www.cdc.gov/flu/about/disease.htm) The graph above displays the number of reported cases of influenza-like illness in Davidson County over the past 14 years by the month of report. The most cases were reported in February followed by January, March, and December.

The optimal time for influenza vaccination is generally during October and November. However, to improve vaccine coverage, CDC recommends that influenza vaccine should continue to be offered in December and throughout the influenza season as long as vaccine supplies are available, even after influenza activity has been documented in the community. Although the timing of influenza activity can vary by region, vaccine administered after November is likely to be beneficial . Adults develop peak antibody protection against influenza infection 2 weeks after vaccination. (*MMWR*. May 28, 2004/53(RR06);1-40)

Influenza Vaccine Update from Metro Public Health Department as of December7, 2004

Metro Public Health Department has given more than 14,000 flu shots since October 2004 to high risk Davidson County residents. Influenza vaccine remains available. Until the vaccine runs out, Davidson County residents who are in a high-risk category for influenza (see page 1) may obtain the vaccine at all 3 Health Department Clinic sites. These include: Lentz health Center at 311 23rd Avenue North, East Health Center at 1015 East Trinity Lane, and Woodbine Health Center at 224 Oriel Avenue. Flu shots will be offered at each clinic from 8:30 a.m. until 2:30 p.m. Monday through Friday. There is a $10 fee, and TennCare and Medicare Part B is accepted. The Health Department will require documentation that residents fall into the high risk categories.

Davidson County residents may call 340-2100 for a recorded message for information and updates on flu shot clinics. Updates will also be placed on the Health Department's Internet site located at: <http://healthweb.nashville.gov. Please note that there is no www in the Internet address.

Receipt of flu vaccine

Forty–three percent of Davidson County residents reported receiving the flu vaccine during the last flu season (2003). Only 5% of those who received the flu shot reported any difficulty obtaining the vaccine. Fifty-seven percent of participants indicated that they would like to receive the flu shot in 2004. Thirty percent indicated that they would not like to receive the flu shot and 8% were unsure. Five percent did not answer.

Information seeking behavior

When queried regarding the main source of information about the flu and flu vaccine, Davidson County participants indicated that television was their main source (57%) followed by their health care provider (15%).

Source of Information	%
TV	57
Radio	1
Newspaper	9
Health Care Provider	15
Friends/Family/Word of Mouth	3
Local Health Department	4
State Health Department	1

Reasons for not seeking the flu vaccine

For those who did not seek to obtain a flu shot in 2003, the most common reasons given were that: 1) Didn't think it was necessary (21%), 2) Never thought about it (17%), and 3) Thought it would make me sick (13%).*

Never thought about it	17%
Never saw a medical provider to ask	1%
Thought it was not effective	6%
Thought it was not necessary	21%
Thought side effects were not worth it	5%
Believed flu shot would make me sick	13%
Too expensive	<1%
Insurance would not cover it	<1%
Did not have time	3%
Other	11%

*Adds to 80%; other participants did not answer the question.

The Healthy People 2010 objective is to achieve vaccination coverage for 90% of persons aged 65 and older.

Response to Davidson County, TN Community Health Behavior Survey 2001 Question: During the past 12 months, have you had a flu shot?

RESPONSE	Total	18 - 24	25 - 44	45 - 64	65+	M	F	Married	Div/Sep	Single	Widowed
Yes	31.4%	14.7%	18.0%	34.9%	67.6%	29.3%	29.1%	29.7%	29.3%	20.7%	56.6%
No	68.6%	85.3%	82.0%	65.1%	32.4%	70.7%	70.9%	70.3%	70.7%	79.4%	43.4%
	Race			Education			Income				
RESPONSE	White	Black	Other Race	<HS	HS	>HS	<$10,000	$10 - $24,000	$25 - $49,000	$50,000+	
Yes	30.3%	26.2%	27.9%	35.8%	29.4%	27.8%	27.0%	30.4%	26.3%	28.3%	
No	67.0%	73.0%	73.0%	61.0%	68.0%	70.0%	68.0%	66.0%	72.0%	71.0%	

The information contained in this table is derived from the 2001 Davidson County Community Health Behavior Survey. The survey generates information about health risk behaviors, clinical preventive practices, and health care access and use primarily related to chronic diseases and injury. The survey utilizes a standardized questionnaire to determine the distribution of risk behaviors and health practices of persons 18 years or older in Davidson County. Respondents are anonymous and participation is voluntary. As evidenced in this table, Davidson County falls well short of the Healthy People 2010 objective of 90% of persons aged 65 and older achieving influenza vaccination coverage.

Protect Yourself Against the Flu...There are things you can do whether you take the flu vaccine or not.

If you are in a priority group to receive flu vaccine this year, get the vaccine if at all possible.

Vaccination against the flu is the primary way to prevent this disease.

Practice good respiratory hygiene and cough etiquette!

All people with respiratory symptoms should practice good respiratory hygiene and cough etiquette. These consist of the following:

- Cover the nose and mouth when coughing or sneezing, preferably using a disposable tissue.
- Use tissues to contain mucus, saliva, and nasal drip (respiratory secretions); dispose of them after use.
- Wash hands with soap and water or use an alcohol-based hand gel after coming in contact with respiratory secretions or contaminated objects.
- Keep hands away from the face, especially the mouth and eyes.

Wash your hands!

Handwashing is an essential part of preventing illness, including influenza. It is especially important to wash the hands:

- before, during, and after preparing food,
- before eating,
- after using the bathroom,
- after diapering or assisting with toileting,
- after handling animals or animal waste,
- when the hands are visibly dirty, and
- more frequently when someone in the home or work environment is sick.

The correct way to wash the hands:

1. Wash all surfaces, including backs of hands, wrists, between fingers, and under fingernails for a minimum of 20 seconds with warm soapy, running water. Children can be taught to wash their hands long enough to sing the "Happy Birthday" song twice.
2. Rinse well and dry hands on a clean towel, paper towel, or in a public restroom use an air dryer.

As much as possible, avoid contact with people who are sick! Stay at home when sick with a fever and cough!

Flu is spread primarily from person to person through coughs and sneezes. This happens when droplets from infected persons travel through the air to the mouth or nose of other persons in the vicinity. The virus can also be transmitted by touching an object (door knob, toy) contaminated with droplets from an infected person and then touching the nose or mouth before handwashing occurs.

Whenever possible, persons should stay home from work, school, and errands when ill with the flu in order to minimize exposure to other persons.

Handwashing Facts from the Centers for Disease Control and Prevention

It has been estimated that proper handwashing could *eliminate close to half of all foodborne diseases.*

Women wash their hands more often than men (74% vs 61%).

A study of 305 school children found that children who washed their hands 4 times a day had *24% fewer sick days due to respiratory illness* and 51% fewer sick days due to upset stomach.

CDC Fast Facts. Accessed at: http://www.cfsan.fda.gov/%7Edms/a2z-h.html on December 8, 2004.

Reported Cases of Selected Notifiable Diseases for Sept/Oct 2004

Disease	Cases Reported in September/October		Cumulative Cases Reported through October	
	2003	2004	2003	2004
AIDS	53	32	234	230
Campylobacteriosis	5	8	17	32
Chlamydia	513	362	2,205	2,083
DRSP (Invasive drug-resistant *Streptococcus pneumoniae*	4	0	21	7
Escherichia coli 0157:H7	0	1	0	4
Giardiasis	7	15	18	43
Gonorrhea	288	189	1,265	964
Hepatitis A	2	6	8	19
Hepatitis B (acute)	3	0	19	17
Hepatitis B (perinatal)	3	3	25	36
HIV	58	57	267	265
Influenza-like Illness	1	0	921	184
Neisseria meningitidis disease	0	0	0	1
Salmonellosis	4	7	41	51
Shigellosis	2	4	10	16
Syphilis (primary and secondary)	3	4	17	13
Tuberculosis	7	9	49	43
VRE (Vancomycin-resistant enterococci)	6	0	38	23

To report a notifiable disease, please contact:

Sexually transmitted diseases: Brad Beasley at 340-5676
AIDS/HIV: Mary Angel-Beckner at 340-5330
Hepatitis B: Denise Stratz at 340-2174
Tuberculosis: Alisa Haushalter at 340-5650
Hepatitis C: Pat Sanders at 340-5632
Vaccine-preventable diseases: Mary Fowler at 340-2168
All other notifiable diseases: Pam Trotter at 340-5632

Return Service Requested

Public Health Watch welcomes feedback, articles, letters, and suggestions. To communicate with *Public Health Watch* staff, please:

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